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# Caries prevention due to the timing of the eruption and mineralization of permanent teeth in children environmental problems of the regions of the republic of Uzbekistan

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Numerous clinical observations indicate that caries develops most intensively in the first years after teething, which coincides with the period of immature enamel. Due to the mineralization of enamel, its resistance to caries increases. The terms of eruption and mineralization of permanent teeth in school-age children with the physiological development of the child coincide with the terms of complete resorption of the roots of temporary teeth.

**Key words:** caries prevention, eruption time, mineralization of permanent teeth, in children, environmental problems.

## 1.Introduction

Eruption and mineralization of permanent teeth is an important aspect of a child's growth and development. Teething is a very complex and not fully understood process. One of the most important stages in the formation of the child's dental system is the period of replacement bite. Monitoring the eruption of permanent teeth and the formation of occlusion is an important point that requires special attention from a pediatric dentist. It is important to emphasize that the study of the features of eruption and mineralization of permanent teeth is of diagnostic and prognostic interest and also justifies the feasibility of dental prevention of school-age children (V. G. Galonsky, A. A. Radkevich, N. V. Tarasova, A. I. Volynkina).

To date, in our Republic there are no comprehensive studies on the timing of eruption and reflecting the dynamics of mineralization of the enamel of permanent teeth in children. There is a work By F. L. Mirsalikhova devoted to the study of the degree of mineralization with the timing of eruption of the first permanent molars in children of the city of Tashkent. Based on the above, the study of the timing of eruption and mineralization of permanent teeth in children is very relevant, has great practical and theoretical significance, since the results obtained will be taken into account when organizing dental care for the children's population of our Republic.

Most often in our country, mass and collective methods of prevention are used, which, on average, reduce the growth of caries by up to 50%. Carrying out stereotypical prevention, even taking into account regional characteristics, does not allow us to hope for a high end result.

# 2.Main part

Numerous literature data indicate that the timing of teething in children living in different countries is very similar. The first permanent molars erupt at the age of 6-7 years. These teeth are exposed to an active carious attack as a result of increased risk factors: incomplete mineralization process and the stressful effect of the period of adaptation of children to school on the child's body, which reduces its non-specific resistance.

So, by the end of the first grade, most children have not only distinct deviations in neuropsychic health (up to 54%), but also diseases of the digestive system (29.4%), a decrease in hemoglobin in the blood, an increase in asthenia, the appearance of functional disorders of the cardiovascular system, complaints of headaches in the afternoon, fatigue, irritability, tearfulness, sleep and appetite disorders, night terrors. Incomplete mineralization of the hard tissues of permanent teeth at this age is a factor of increased risk of caries. The development and course of caries is largely determined by the ratio of the processes of de-and remineralization of the surface layer of enamel. The targeted use of the remineralization effect to increase the resistance of dental tissues is one of the most promising ways to prevent caries during teething. The direction of re-mineralizing therapy and prevention of dental caries is well-founded and is based on clear scientific facts, provisions and evidenceModern trends provide for a differentiated approach to primary prevention and treatment of dental caries, while the content, scope of treatment and prevention measures, the frequency of repeated visits during medical examinations and rehabilitation, should largely be determined by the degree of activity of the carious process. Modern scientific dental schools the principles of treatment and preventive measures to strengthen the resistance of organs and tissues of the mouth, improvement of self-purification and hygiene, reduce the intensity of the pathogenic factors, but the detail of these activities depending on the degree of activity of caries during the eruption and mineralization of the first permanent molars has not been developed, leading to the stereotypical conduct of prevention without considering the peculiarities of identity groups and reduces the quality of preventive and curative work.

The prevalence of caries among children remains an urgent issue in our time. The incidence of caries, especially in young children, remains high. According to who, at the age of one year, some children in 15% of cases are found affected by caries teeth, by three years the prevalence of caries in children reaches 46%, by six years-96%. In this regard, improving the system of dental care for children in the country and maintaining it at the current level is an extremely important problem facing the organizers of practical health care. Based on clinical studies, it has been established that the health of baby teeth and their caries resistance largely depends on the conditions of the child's antenatal development. This is due to the fact that the laying of temporary teeth occurs at 7-8 weeks of pregnancy, the development of rudiments lasts up to 20 weeks.

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Especially intense mineralization of teeth occurs in the last months of pregnancy. The high incidence of oral tissue in children with visceral pathology of the expectant mother, as well as in children born to mothers with severe pregnancy, is well known. The most pronounced "risk periods" for the development of dental pathology are the period of pregnancy, the first year of the child's life, and the period of teething. Already in the early stages of pregnancy is the deterioration of the hard tissues of the teeth as against the General state of health of the mother and due to poor hygienic condition of the oral cavity and changes in the composition of oral fluid. This makes it necessary to carry out preventive measures throughout the entire period of pregnancy. Pregnancy toxicosis is one of the important adverse factors affecting the incidence of caries in temporary teeth. Children born to mothers with late pregnancy toxicosis and under the supervision of a dentist for 3 years had a higher prevalence and intensity of caries compared to children whose mothers had a physiological pregnancy . Modern trends provide for a differentiated approach to primary prevention and treatment of dental caries, while the content, scope of treatment and prevention measures, the frequency of repeated visits during medical examinations and rehabilitation, should largely be determined by the degree of activity of the carious process. Modern scientific dental schools the principles of treatment and preventive measures to strengthen the resistance of organs and tissues of the mouth, improvement of self-purification and hygiene, reduce the intensity of the pathogenic factors, but the detail of these activities depending on the degree of activity of caries during the eruption and mineralization of the first permanent molars has not been developed, leading to the stereotypical conduct of prevention without considering the peculiarities of identity groups and reduces the quality of preventive and curative work.

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### 3. Conclusion

For temporary teeth, the CP indicator is calculated - the number of carious and filled teeth of temporary bite, although this does not reflect the actual picture of the intensity of caries, since removed baby teeth due to complicated caries are not taken into account. Therefore, the determination of the prevalence and intensity of caries in children of early and preschool age, taking into account the removed baby teeth due to complicated caries (CPI+CPI index), is timely and appropriate in order to strengthen the prevention of caries of baby teeth and increase the level of dental care for children of early and preschool age.

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